

respectively, which have been renumbered to correspond with the added Figure 1.

Please replace the following paragraphs in the specification. Applicants include herewith an Attachment for Specification Amendments showing a marked up version of each replacement paragraph in which underlines indicate insertions and brackets indicate deletions.

Please delete the following paragraphs of the specification:

[0015] Figure 1 is a cutaway perspective view of an embodiment of an o-ring removal slot of a pin for use in a plasma arc apparatus constructed according to the principles of the present invention;

[0016] Figure 2 is a top view of an embodiment of an o-ring removal slot within a pin for use in a plasma arc apparatus constructed according to the principles of the present invention;

[0017] Figure 3 is a cross-sectional view, taken along plane A-A of Figure 1, of an embodiment of a method of removing an o-ring via an o-ring removal slot according to the principles of the present invention; and

[0018] Figure 4 is a cross-sectional view of an embodiment of an o-ring removal slot of a sealing member having an o-ring shoulder constructed according to the principles of the present invention.

[0020] Referring to the drawings, a pin according to the present invention is illustrated and generally indicated by reference numeral 10 in Figure 1. As shown, the pin 10 comprises an o-ring groove 12 disposed around a

cylindrical portion 14 of the pin 10. Further, the cylindrical portion 14 is disposed at a distal end 16 of the pin 10, which is recessed inside a connector 18 in accordance with one form of the present invention. As further shown, the pin 10 also comprises an o-ring removal slot 20 adjoining the o-ring groove 12, which provides access for removal of an o-ring 22 disposed within the o-ring groove 12, using, for example, an o-ring removal tool (not shown).

[0023] Generally, the pin 10 engages a main power socket (not shown) disposed within a power supply (not shown), and the o-ring 22 provides a fluid-tight seal between the pin 10 and the main power socket when the torch lead is connected to a power supply (not shown) of a plasma arc cutting apparatus. Preferably, the pin 10 is a negative lead gas carrying pin and comprises of a brass material. Additionally, the connector 18 is a plug housing, which is connected to the torch lead side of a connection between the torch lead and the power supply of a plasma arc cutting torch in one form of the present invention.

[0024] Referring also to Figure 2, wherein the o-ring 22 is omitted for clarity, the o-ring removal slot 20 in one form is approximately perpendicular to the o-ring groove 12 as illustrated, although other orientations such as a spiral groove that adjoins the o-ring groove 12 at an angle, may also be employed in accordance with the teachings of the present invention. Further, the o-ring removal slot 20 extends between the distal end 16 of the pin 10 and the o-ring groove 12, such that an o-ring removal tool may be inserted into the connector

18 proximate the recessed pin 10 to engage the o-ring removal slot 20 and thus remove the o-ring 22 disposed within the o-ring groove 12.

[0026] As shown in Figure 3, an o-ring removal tool 24 engages the o-ring removal slot 20 and is then advanced along the o-ring removal slot 20 to engage the o-ring 22 disposed within the o-ring groove 12. Accordingly, the o-ring removal tool 24 removes the o-ring 22 via the o-ring removal slot 20 as shown. As a result, the o-ring 22 is removed more easily since greater access thereto is gained through the o-ring removal slot 20, especially if the o-ring groove 12 is recessed within the connector 18 as previously described. As a result, the o-ring 22 may be removed relatively quickly while minimizing any damage to both the o-ring 22 as well as the pin 10 from engagement of the o-ring removal tool 24. Additionally, a plurality of o-ring removal slots 20 may be disposed within the pin 10 rather than only one o-ring removal slot 20 as described herein, such that at least one o-ring removal tool engages a plurality of o-ring removal slots to remove the o-ring 22.

[0028] Referring now to Figure 4, the o-ring removal slot 20 is employed in a sealing member 26 in yet another form of the present invention, wherein the o-ring removal slot 20 adjoins a shoulder 28 rather than an o-ring groove 12 as previously described. As shown, the o-ring 22 is disposed against the shoulder 28 to seal an interface between the sealing member 26 and an adjacent sealing member (not shown). Accordingly, the o-ring removal slot 20 provides access for removal of the o-ring 22. Additionally, the o-ring removal slot 20 is approximately perpendicular to the o-ring shoulder 28, although other

orientations, such as a spiral that adjoins the shoulder 28 at an angle, may be employed in accordance with the teachings of the present invention. Furthermore, the o-ring removal slot 20 may have a constant or non-constant depth, which is sized according to the specific application so as to maintain the sealing integrity of the o-ring 22.

Please add the following paragraphs:

[0015] Figure 1 is a perspective view of a plasma arc cutting apparatus according to the principles of the present invention;

[0016] Figure 2 is a cutaway perspective view of an embodiment of an o-ring removal slot of a pin for use in a plasma arc apparatus constructed according to the principles of the present invention;

A1 [0017] Figure 3 is a top view of an embodiment of an o-ring removal slot within a pin for use in a plasma arc apparatus constructed according to the principles of the present invention;

[0018] Figure 4 is a cross-sectional view, taken along plane A-A of Figure 2, of an embodiment of a method of removing an o-ring via an o-ring removal slot according to the principles of the present invention; and

[0018.1] Figure 5 is a cross-sectional view of an embodiment of an o-ring removal slot of a sealing member having an o-ring shoulder constructed according to the principles of the present invention.

A2 [0020] Referring to the drawings, a pin (not shown) according to the present invention is preferably employed in a plasma arc cutting apparatus 1 as

shown in Figure 1, although the pin may also be used in other applications while remaining within the scope of the present invention. The plasma arc cutting apparatus 1 generally comprises a torch lead 2 that connects a torch 3 to a power supply 4, wherein both gas and electric power are conducted for operation of the plasma arc cutting apparatus 1. Additionally, a main power socket 5 is secured to the power supply 4, which is engaged by a main power plug 6 that is secured to the torch lead 2.

A2 [0020.1] The pin according to the present invention is disposed within the main power plug 6 and is illustrated and generally indicated by reference numeral 10 in Figure 2. As shown, the pin 10 comprises an o-ring groove 12 disposed around a cylindrical portion 14 of the pin 10. Further, the cylindrical portion 14 is disposed at a distal end 16 of the pin 10, which is recessed inside a connector 18 within the main power plug 6 in accordance with one form of the present invention. As further shown, the pin 10 also comprises an o-ring removal slot 20 adjoining the o-ring groove 12, which provides access for removal of an o-ring 22 disposed within the o-ring groove 12, using, for example, an o-ring removal tool (not shown).

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A3 [0023] Referring to both Figures 1 and 2, the pin 10 engages the main power socket 5 disposed within the power supply 4, and the o-ring 22 provides a fluid-tight seal between the pin 10 and the main power socket 5 when the torch lead 2 is connected to the power supply 4 of the plasma arc cutting apparatus 1. Preferably, the pin 10 is a negative lead gas carrying pin and comprises a brass material. Additionally, the connector 18 is a plug housing

within the main power plug 6, which is connected to the torch lead side of the connection between the torch lead 2 and the power supply 4 of the plasma arc cutting apparatus 1 in one form of the present invention.

A3 [0024] Referring also to Figure 3, wherein the o-ring 22 is omitted for clarity, the o-ring removal slot 20 in one form is approximately perpendicular to the o-ring groove 12 as illustrated, although other orientations such as a spiral groove that adjoins the o-ring groove 12 at an angle, may also be employed in accordance with the teachings of the present invention. Further, the o-ring removal slot 20 extends between the distal end 16 of the pin 10 and the o-ring groove 12, such that an o-ring removal tool may be inserted into the connector 18 proximate the recessed pin 10 to engage the o-ring removal slot 20 and thus remove the o-ring 22 disposed within the o-ring groove 12.

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A4 [0026] As shown in Figure 4, an o-ring removal tool 24 engages the o-ring removal slot 20 and is then advanced along the o-ring removal slot 20 to engage the o-ring 22 disposed within the o-ring groove 12. Accordingly, the o-ring removal tool 24 removes the o-ring 22 via the o-ring removal slot 20 as shown. As a result, the o-ring 22 is removed more easily since greater access thereto is gained through the o-ring removal slot 20, especially if the o-ring groove 12 is recessed within the connector 18 as previously described. As a result, the o-ring 22 may be removed relatively quickly while minimizing any damage to both the o-ring 22 as well as the pin 10 from engagement of the o-ring removal tool 24. Additionally, a plurality of o-ring removal slots 20 may be disposed within the pin 10 rather than only one o-ring removal slot 20 as